The NASA HRMS Sky Survey X-Band Observations: A Progress Report

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Abstract: The Sky Survey Element of NASA's High Resolution Microwave Survey (HRMS) has been actively eng aged in a Sc arch for ExtraTerrestrial Intelligence (SETI) since October 12, 1992, using a prototype system with a ?09'/152-channel spectrum analyzer operating primarily at X-Band frequencies. While the frequency coverage of the prototype and the telescope time being devoted to the search are only a small fraction of our ultimate intentions, the yrepresent a substantial search capability and provide valuable experience in doing S1 T1. '1'0 date, we have identified no ETI signals at a sensitivity level of approximately 4x10-22 W/m² over a search space of 25 M1 Iz-sr. The prototype system is performing wall, with sensitivity and false alarm statistics consistent with theme.tic:il predictions in the absence of Radio-Frequency Interference (RFI).